U. S. Environmental Protection Agency
Mid-Atlantic Region

WaterInfo

Progress in Water Programs...

Green Infrastructure news….

Green Infrastructure (GI) Workshop
Exploring challenges...

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Volume 3, Issue 1

March 2009

IN THIS ISSUE

Welcome to the latest edition of WaterInfo – a newsletter promoting the progress of the Water Programs of the U.S. EPA Mid-Atlantic Region 3. This issue focuses on the progress of the Healthy Waters Priority, specifically the Developing & Developed Land Sector (Land Sector). This issue looks at innovative approaches to Green Infrastructure, as well as Stormwater Management issues and Best Management Practices all related to land and water issues. Articles include: greener clean-ups; how removing trash can reveal natural treasures; and keeping it clean from source to stream. These and other articles provide new and innovative ideas to restore and protect our water resources.

We hope you enjoy this issue!!

Join WaterInfo on the web in the Quickplace Forum - see page 7 for details

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HEALTHY WATERS - Feature - Land Sector

The Healthy Waters Land Sector has been very busy with ten individual projects, spanning almost every program.

Efforts include:

- Using TMDL modeling to address stormwater impacts in urban streams
- Coordinating with other federal agencies and partners to adopt smart growth and more ecologically-sensitive land management practices
- Working to preserve and protect the land and water in and around growing population centers
- Making the most of the NPDES-Stormwater Program
- Working with the Chesapeake Bay Program Office to develop and implement actions which address water quality impacts
- Supporting a national definition for Maximum Extent Technically Feasible (METF); implementing the rule and integrating the 2007 Energy Act's MEFT language into the Land Development Strategy
- Understanding how EPA can best support states and local governments to address the effects of future land use
- Seeking opportunities for innovative and creative use of existing EPA tools and authorities, including Green Remediation and Brownfields projects
- Communicating the latest information; identifying research needs regarding development and implementation of "best practices"; hosting a regional Science Workshop on Green Infrastructure and Green Infrastructure controls
- Collaborating with PA, MD & VA to develop and implement new approaches to protect high quality waters/ aquatic ecosystems from the effects of future land use

The Land Sector has been a very busy Healthy Waters Team and its far reaching strategy spans almost every program with 10 individual project plans underway.

For more info, visit EPA's Quickplace- Land Sector Team
http://epaqpx.rtp.epa.gov/waterinfo
Not registered? See page 7

Events

L'acqua e Vita,
La Vita e Acqua
Water is Life,
Life is Water

EPA's 2009 Philadelphia Flower Show exhibit wins 3 awards!

Exhibit photos:
www.epa.gov.region03

Green Exhibition 2009

March 14-15, 2009

PA Convention Center

Philadelphia, PA

GREEN INFRASTRUCTURE - Green Infrastructure Workshop

Green Infrastructure (GI) is a strategically managed network of natural lands, working landscapes and other open spaces that conserves ecosystem values and functions and provides associated benefits, collectively called ecosystem services, to human populations. GI includes the connected natural systems and ecological processes that provide critical functions such as habitat for wildlife, water storage and filtration, air quality benefits, and healthful lifestyles. Increasingly, localities are assessing their green infrastructure to ensure that land development patterns are ecologically sensitive and protect critical resources such as drinking water, agricultural lands, wildlife habitat, parks and other open spaces for recreation. However, there is a strong need for support in design and implementation at the regional, state and local scale.

In February 2009, Region 3 will be hosting a Regional Science workshop on Green Infrastructure.

On February 9, 2009, Region 3 will be hosting a Regional Science Workshop on GI that seeks to explore these challenges and determine the state of knowledge in the field of GI in the mid-Atlantic Region.

Workshop objectives include the following:

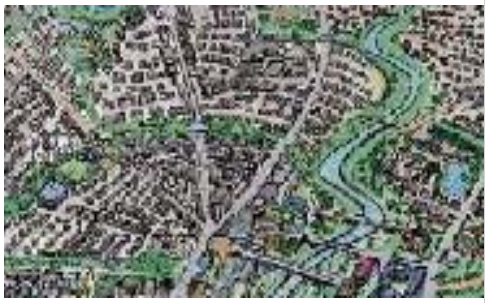
• To bring together researchers and practitioners to establish a scientific foundation that advances the application of GI

• To develop a set of research/information needs for the use of GI as a vital tool in ecological, social and economic preservation and restoration

• To establish an active community of practice on GI in the Mid-Atlantic region (the Mid-Atlantic Green Infrastructure Consortium, MAGIC)

How are we doing?

The major outcome will be the establishment and continued development of the Mid-Atlantic Green Infrastructure Consortium, MAGIC.



Green Infrastructure design along the banks of an urban stream.

For more information visit:

http://epawww.epa.gov/r3intran/eaid/gi/

GREEN INFRASTRUCTURE - Managing Runoff

EPA Region 3 is expanding its efforts to promote the use of Green Infrastructure approaches to control storm runoff. The Region will begin hosting a series of 1-1/2 day workshops titled: "Managing Wet Weather Using Green Infrastructure" for local officials in all Region 3 States this spring.

The workshops will promote the Green Infrastructure concept and provide training to municipal officials and others responsible for wet weather management on specific practices for implementation. The effort aims to reach a diverse group of professionals in wet weather control from stormwater managers, utility officials and their engineers, to land use planners and government officials.

The Region is reaching out to our local and state partners in the NPDES Stormwater and CSO Programs to determine interest level and solicit ideas.

Topics to be covered include:

- Benefits of Green Infrastructure
- Modeling and other approaches to estimating where, how and how much green infrastructure can be applied
- Design & Construction
- Retrofit Opportunities
- Funding Options
- Stormwater Infiltration & SDWA Considerations
- Local Codes & Ordinances
- Operation & Maintenance
- Using Green CSO Controls: Putting it all together

Rain Garden:
An Example of Low Impact Development

How are we doing?

EPA provides planning and technical support, as well as funding and contractor support to cover workshop logistics. The Region is reaching out to our state and local partners in the National Pollution Discharge Elimination System (NPDES) Stormwater and Combined Sewer Overflow (CSO) Programs to determine interest level and solicit ideas so that the workshops are well tailored for each state and the particular growth hotspot where we host the workshop. EPA HQ Office of Water, Permits Division has hosted workshops in several states, most recently in Louisville, Kentucky, and received positive reviews from the local officials (including Department of Transportation) who attended. Several states in the Mid-Atlantic region have expressed interest in holding workshops which are scheduled to begin this spring.

For more information visit:
http://swimmablenyc.info/wp-content/uploads/2008/02/epa-green-infrastructure_action_strategy.pdf

BEST PRACTICES - Striving for Greener Cleanups

EPA's cleanup programs are dedicated to using innovative strategies that restore contaminated sites to productive use, reduce associated costs, and promote environmental stewardship. EPA strives for cleanups that use natural resources and energy efficiently, reduce negative impacts on the environment, minimize or eliminate pollution at its source, and reduce waste. Assessment and remedial activities create environmental impacts consuming natural resources, producing waste and creating exposures. For example, a study of assessment work on a typical manufactured gas plant site showed that assessment activities alone result in the use of 1,200 to 6,000 gallons of fuel, 17,000 to over 190,000 gallons of water and generate from 27,000 to 140,000 pounds of CO_2 and 50 to 200 55-gallon drums of waste left from the investigations. Under a new initiative to green its cleanup programs, EPA is working with private and public partners to foster the use of best management practices (BMPs) for green remediation at contaminated sites. Green cleanup is the practice of considering all environmental effects of a cleanup during each phase of the process, and incorporating strategies to maximize net environmental benefit of the cleanup. The core considerations of green remediation are: energy use, air emissions, water use, materials and waste reduction, ecosystem protection or enhancement and long-term site stewardship. By focusing on activities that support our core mission, EPA is identifying opportunities for improvement, establishing a strong community of BMP practitioners, and developing mechanisms and tools to facilitate the use of green practices.

EPA is working with private and public partners to foster the use of BMPs for green remediation at contaminated sites.

How are we doing?

There are many potential benefits to both the regulators and property owners/potentially responsible parties. Benefits include: a reduction in our cleanups' carbon footprints and opportunities to sequester carbon cost savings (associated with lower utility costs, less long-term operation and maintenance costs, income from recycling materials, and carbon credits, for example); increased use of recycled materials; reduced local impacts to air, water, and soil; and increased green space and restored ecosystems and biodiversity. Numerous helpful resources have been compiled to assist practitioners, including a primer, technology-specific quick reference guides, energy audit tools, training programs, and site specific technical assistance.

For more information visit:

http://www.clu-in.org/greenremediation/

For Region 3 specific activities:
Enter "Region 3" in the Search on the webpage above

BEST PRACTICES - Removing Trash Reveals Nature's Treasures

The 25.3-acre property—perched on the banks of the Susquehanna River close to railroad tracks under the ownership of the Pennsylvania Railroad from 1905-1957 and purchased from the Railroad in 1957 by local resident, Grace Lease—sat idle for almost 100 years. As a result, many county residents, who did not want to pay refuse removal fees, illegally dumped solid waste on the property. The community perceived the property to be contaminated. Visible were remnants of a petroleum drum, bottles, trash and general refuse items. In 2005, a Phase-II (soil, field sampling) site assessment funded by the EPA Brownfields Assessment Grant, found no pollution exceeding PADEP standards, thus playing an integral role in removing the environmental stigma attached to the property. The successful Phase I (document review) and II assessments stimulated other partners' interest in managing the property and leveraged up to $270,000 for cleanup and redevelopment.

The Grace Lease Property will continue to enhance the community's most revered natural resource, the Susquehanna River.

How are we doing?

Lancaster County Conservancy purchased the property in May '06 with the intention of returning the property to productive use. The Grace Lease Property now enhances the community's share of Lancaster County's revered natural resource, the Susquehanna River. Redevelopment planning begun in Dec. '05, has recreated 25.3 acres of open space in Manor Township and habitat for wildlife. Lancaster County Conservancy has blazed a trail to reintegrate the property into the community linking a small parking lot on the property as an active extension to the popular Turkey Hill hiking trail. Future amenities include creating picnic grounds and a scenic overlook of the river corridor. The river corridor will protect and manage natural resources and wildlife habitat. Some species have already begun to reemerge. The bald eagle symbolizes the property's strong recovery through countywide initiatives to preserve woodlands and open space. The formerly desolate Grace Lease Property will serve as habitat for migratory birds, wildlife, tourists, and nature lovers alike.

STORMWATER - Keeping it Clean from Source to Stream

The Region 3 Stormwater Program is tasked with many important functions in order to ensure that Clean Water Act objectives of fishable and swimmable waters are met. Among these functions are reviewing and commenting on permits, performing compliance inspections, taking appropriate enforcement actions, providing resources for assisting states with their stormwater manuals, municipalities with the implementation of their stormwater plans, and striving for the highest standards of protection available. The Stormwater Program is undertaking several initiatives to further the efforts of stormwater protection. These initiatives include:

The Stormwater Program is undertaking several initiatives to further the efforts of stormwater protection.

- reviewing and commenting on the many upcoming stormwater permits for reissuance (MS4, Construction, and Industrial)
- implementing a stormwater permitting approach consistent with the recent OIG report to maximize protection of Chesapeake Bay from the impacts of existing development and new construction
- developing tools and approaches to assist stormwater permittees in ensuring that discharges comply with TMDLs

- reviewing and providing assistance in the development of an Effluent Limit Guidelines (ELG) for stormwater construction activities
- reviewing and commenting on state standards and manuals (with a particular focus on encouraging green practices)
- developing stormwater permit review checklists
- providing training and compliance assistance to states and permittees regarding MS4s
- Implementing stormwater compliance strategies with a focus on home building, large retail development, Ready-Mixed concrete operations, and Phase 1 and Phase 2* MS4s

How are we doing?

The Program has inspected:

- 26 homebuilding sites
- 11 retail development sites
- 4 Ready-Mixed concrete facilities
- 5 ports **

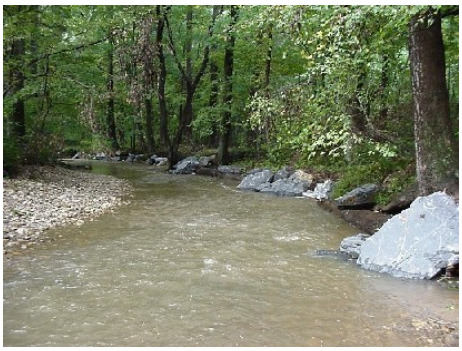
*MS4 Phase 1/Phase 2- size of system

**Office of Enforcement, Compliance and Environmental Justice

STORMWATER - Stormwater TMDLs

EPA is partnering with Virginia to develop and implement a "pilot" Total Maximum Daily Load (TMDL) addressing impairments attributable to stormwater that can be imitated across the Region. This pilot storm water TMDL will provide allocations that represent reductions in the flow of stormwater from point and nonpoint sources to achieve water quality standards within an impaired watershed. If successful, the TMDL can serve as a model for TMDLs to be developed and implemented in watersheds throughout the Region which are impaired by pollutants associated with development and excess stormwater flow. The stormwater TMDL will directly address the cause of stream impairment in urban areas and reduce stormwater flow by permitting the use of Municipal Separate Storm Sewer System (MS4) Best Management Practices. In addition, the techniques may also be used to protect high quality streams threatened by future land use changes.

The stormwater TMDL can serve as a model for TMDLs to be developed and implemented in watersheds throughout the Region which are impaired by pollutants associated with development and excess stormwater flow.



Accotink Creek

How are we doing?

EPA and Virginia plan to develop the stormwater TMDL in Accotink Creek based on its 1998 Section 303(d) listing due to failing to attain aquatic life use for benthics. The Accotink Creek watershed is a highly urbanized watershed with about eight miles of impaired streams. Stakeholders have been actively involved in developing this TMDL.

STATE PARTNERS - MD Corp. Wetlands Partnership Launched

Last October, local businesses, corporate and government officials, and environmental leaders gathered at the Queenstown Harbor Golf Course to mark the inception of the Maryland chapter of the Corporate Wetlands Restoration Partnership (CWRP).

Former EPA Mid-Atlantic Regional Administrator Don Welsh and former EPA Assistant Administrator Ben Grumbles launched the Maryland CWRP, congratulating corporate partners (The Brick Companies and Constellation Energy), as well as the state and federal partners (the Maryland Department of Natural Resources and the Maryland Department of the Environment, and the U.S. Fish and Wildlife Service), in this collaborative effort. Speakers addressed the benefits of building new public-private partnerships, as well as expanding existing partnerships, to improve sensitive aquatic habitat in the Chesapeake and Atlantic Coastal Bays. In addition, the group announced the proposed restoration of numerous environmental habitats in Maryland, including the eroding shoreline of the Chester River. The ambitious shoreline project, located at Hail Point on the Chester River, is home of the Eastern Neck Wildlife Refuge and one of six proposed environmental restoration projects planned by the Maryland CWRP. Other proposed project locations include the North Point State Park, the shoreline of the Nanticoke River and Isle of Wight Wildlife Management Area.

The Maryland CWRP is an innovative private-public initiative aimed at preserving, restoring, enhancing and protecting aquatic habitats, including wetlands, throughout the state of Maryland. Bringing together corporations, federal and state agencies, non-profit organizations and academia, the Maryland CWRP allows members to contribute to crucial projects involving coastal and inland waterways and ecosystem educational programs. In addition, the Maryland CWRP provides an opportunity to build positive working relationships among private and public organizations by fostering an environment that allows a better understanding of one another's perspectives. Participation in the Maryland CWRP is voluntary and flexible. Companies or organizations can contribute financial

support to a general fund to serve the most critical areas of wetland and aquatic habitat protection and restoration. Contributors also have the option of targeting their support to a specific approved project or program. Monetary

contributions are used to match federal grant awards at an average ratio of 3:1. The CWRP is a standing committee of the Coastal America Foundation (CAF), a partnership among federal, state, local and tribal governments working with private alliances to address environmental problems along our nation's coast and inland waterways. Coastal America's federal partners include:

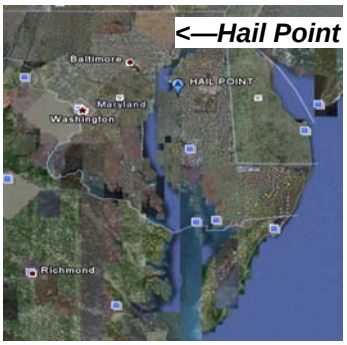
The ambitious shoreline project at Hail Point on the Chester River is one of six proposed environmental restoration projects.

- Environmental Protection Agency
- Executive Office of the President
- Department of Agriculture
- Department of the Army
- Department of Commerce
- Department of Defense
- Department of Energy
- Department of Health & Human Services
- Department of Homeland Security
- Department of Housing & Urban Development
- Department of the Interior
- Department of the Justice
- Department of Labor
- Department of State
- Department of Transportation
- National Science Foundation
- National Aeronautics and Space Administration

How are we doing?

Nationally, more than 300 corporate partners have contributed time, materials and money to facilitate selected projects. Since its inception in 1999, the CWRP has received more than $4 million in contributions from its corporate and non-governmental organization (NGO) partners. These contributions have been used to leverage more than $14 million in federal, state and NGO matching funds for the preservation, restoration, enhancement and protection of more than 20,000 acres of wetlands and 7,000 stream miles.

These contributions have also supported educational programs through the Coastal Ecosystem Learning Center (CELC) network. The CELC network combines the resources of federal agencies and marine educational centers, including a number of aquariums throughout the United States and Mexico. This partnership approach allows each center unique access to expert speakers, exhibit information, educational publications, teaching materials, field trip sites and scientific data. Partner Aquariums are located throughout the continental United States, Alaska, Hawaii, and in Vera Cruz, Mexico. The National aquarium in Baltimore is the mid-Atlantic region partner.



Chesapeake Bay

STATE PARTNERS - VA Corp. Wetlands Partnership

More than 500 acres of tidal freshwater marsh, located at the mouth of Herring Creek in Charles City County, are now safe from erosion thanks to a partnership that included the James River Association, U.S. Fish and Wildlife Service (USFW) and partners Vulcan Materials Company, Coastal America, Corporate Wetlands Restoration Partnership (CWRP) and Coastal Design and Construction.

EPA provided communication support and staff assistance for the Regional implementation team.

The CWRP (described on page 5) is a standing committee of the Coastal America Foundation (CAF), a partnership among federal, state, local and tribal governments, including the Environmental Protection Agency. EPA's Tai-Ming Chang co-chairs Coastal America's Mid-Atlantic Regional Implementation Team South, working with private alliances to address environmental problems along our nation's coast and inland waterways.

The newly protected area, known as Ducking Stool Point, is a spit of land at the confluence of the James River and Herring Creek that protects about 500 acres of tidal freshwater wetlands which serve as important habitat for blueback, herring, alewife, hickory shad, largemouth bass, bald eagle, wading birds and waterfowl.

The project involved installing a 1,825-foot long, sloping structure of stone placed between the James River and the marsh that will help prevent marsh vegetation and sediment from further eroding at Ducking Stool Point. Stabilizing the shoreline of this tributary of the James River will help protect habitat for migratory fish, protect the recreational fishery in Herring Creek, and protect feeding sites for bald eagles and other important wildlife that nest and roost in the drainage and at the James River National Wildlife Refuge that lies across the James River. Construction on the project began on October 23rd and was completed on November 24th of last year.

How are we doing?

The Ducking Stool Point project is an example of an effective partnership in action. The USFW Service's Virginia Fisheries Coordinator Office proposed the project for funding through the Department of Interior's Cooperative Conservation Initiative (CCI) program in 2004. CCI granted $100,000 and the James River Association was selected to coordinate and execute the project. Vulcan Material Company provided 3,600 tons of material and its transport, valued at $69,000. CWRP provided $30,000, and the engineering firm selected to construct the revetment, Coastal Design and Construction, donated $10,000 worth of service. The Virginia Chapter of the CWRP includes: Dominion Virginia Power; Philip Morris USA; Smithfield Foods; Smurfit-Stone; Waste Management; Virginia Commonwealth University; and VMA Outreach. A dedication for the completed project was held on December 4th at Westover Plantation.

INFORMATION CORNER - Healthy Waters *Blog*

The creation of the Regional Healthy Waters Blog (Blog) was a conceptual and technological first for the Mid-Atlantic Region. Its purpose, to encourage open-ended, virtual discussions on a variety of water quality-related topics amongst staff and managers, pushed the limits of Regional interpersonal communication. Several important achievements were accomplished through the blog's development. First, it encouraged a new type of open, cross-divisional communication, encouraging staff to not only come together and formally discuss highlighted topics, but to promote a new, more casual online discussion style on these topics to gather a deeper insight into the topics discussed. The Blog stages both a formal, conference-room style and "coffee break" room style dialogue simultaneously, online. Second, the development and introduction of the Blog to staff encouraged a new use of their work station computers. No longer will work-station based communication be limited to emails and phone calls. Staff now have the opportunity to communicate with other members of the regional workforce, some of whom they may have never met, in a common, virtual environment.

"The creation of the Regional Healthy Waters Blog was a conceptual and technological first for the Region."

-John Armstead, Deputy. Director, WPD

These accomplishments were not easy to achieve. In addition to the technical challenges met when developing the Blog, a social challenge was also encountered. The Blog Development Team had to strategize ways to market the existence of the blog to staff, along with methods of instructing, and most importantly, encouraging staff to take the time to learn the blog's functions and participate in its dialogues.

The results of the Blog's development, implementation, and marketing strategy are seen in a variety of settings, and are mostly intangible from the curious and enthusiastic discussions being shared amongst staff in passing conversations, to frank dialogue about environmental pressing issues. Blog participation is increasing with each passing week. In short, the tool is gradually being accepted and utilized. Each week, a new topic is posted; it is our hope that, in the near future, the Blog will be familiar enough to staff so that a pressing issue can be posted and a cross-divisional, open-forum discussion can be made with ease.

The success of this Blog at a regional level, the process that brought the Team to its current position, and the challenges faced when introducing the blog concept to staff were presented at EPA's 2008 Environmental Information Symposium in Phoenix, Arizona. The Healthy Waters Blog has been an exciting project for the Region. It has opened the doors to a new mode of communication for the years to come.

How are we doing?

Currently, the blog is being piloted for migration to our state partners and eventually, the public.

- Most log-ins in one day: 230
- Current number of posts: 18
- 2009 to include posts on Water Policy Innovations and new posting strategy

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
MID-ATLANTIC REGION 3

WATER PROTECTION DIVISION
&
ENVIRONMENTAL ASSESSMENT & INNOVATION DIVISION

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The Mid-Atlantic Region's water programs focus on protecting, preserving and enhancing water resources. We are working with our partners to develop comprehensive environmental programs that help achieve improvements in water quality and public health.

WaterInfo highlights the progress we have made in achieving the greatest water quality benefits.

For FY'09 WPD priority areas include:

- ***Healthy Waters Priority and 4 Sector Strategies***
- ***Meeting Core Water Program Obligations***
- ***Leadership in Interstate Water Protection***
- ***Agency Level Support - Economic Recovery & Water Security***
- ***A Stronger EPA Workforce & Communication***

For FY '09 EAID Priorities include:

- ***Healthy Waters Priority and 4 Sector Strategies***
- ***Oysters***
- ***Mid-Atlantic Wetlands Work Group***
- ***Clean Energy***
- ***Pharmaceuticals***
- ***Chemical Weapons /Homeland Security***
- ***Biology (Investigating Fish in Shenandoah)***
- ***Ocean Survey***
- ***Logic Model/MIRA***
- ***Continued Laboratory and Full Science Support***
- ***Natural Infrastructure***
- ***Mining***
- ***Climate Change***

We're on the Web—Check us out at:

https://epaqpx.rtp.epa.gov/waterinfo

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